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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,176	08/27/2003	Hidekazu Arase	5077-000183	4782
27572	7590	12/08/2005	EXAMINER	
HARNES, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303			SHOSHO, CALLIE E	
			ART UNIT	PAPER NUMBER
			1714	
DATE MAILED: 12/08/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/649,176

Applicant(s)

ARASE ET AL.

Examiner

Callie E. Shosho

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. All outstanding rejections and objections except for those described below are overcome by applicants' amendment filed 9/29/05.

The new grounds of rejection as set forth below are necessitated by applicants' amendment and thus, the following action is final.

### **Double Patenting**

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1 and 8 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/314,004. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the explanation given in paragraph 2 of the office action mailed 6/29/05.

4. Claims 10-13 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 6-7 of copending Application No. 10/341,004. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the explanation given in paragraph 2 of the office action mailed 6/29/05.

5. **NOTE:** In the amendment filed 9/29/05, applicants note that they reserve the right to file a terminal disclaimer at such time as the patentability of the allegedly conflicting claims has been resolved. It is noted that until such time, the above rejection remains relevant against the present claims.

**Claim Rejections - 35 USC § 102**

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1, 3-7, 10, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsumura et al. (U.S. 6,419,732).

The rejection is adequately set forth in paragraph 8 of the office action mailed 6/29/05 and is incorporated here by reference.

Further, given that Matsumura et al. discloses water-soluble substance, i.e. hydrolyzable silane, identical to that presently claimed, it is clear that the water-soluble substance would inherently condensation polymerize in the absence of water and thereby inherently form a network so as to enclose the colorant as presently claimed. Additionally, given that the water-soluble substance of Matsumura et al. has hydrophobic group as presently claimed, it is clear that the network would also inherently have hydrophobicity as presently claimed.

**Claim Rejections - 35 USC § 103**

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claims 8, 11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumura et al. (U.S. 6,419,732) in view of Blease et al. (U.S. 6,585,362).

The rejection is adequately set forth in paragraph 11 of the office action mailed 6/29/05 and is incorporated here by reference.

10. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blease et al. (U.S. 6,585,362) in view of EP 738771.

The rejection is adequately set forth in paragraph 12 of the office action mailed 6/29/05 and is incorporated here by reference.

Further, given that Blease et al. in combination with EP 738771 discloses water-soluble substance, i.e. hydrolyzable silane, identical to that presently claimed, it is clear that the water-soluble substance would intrinsically condensation polymerize in the absence of water and thereby intrinsically form a network so as to enclose the colorant as presently claimed. Additionally, given that the water-soluble substance of EP 738771 has hydrophobic group as presently claimed, it is clear that the network would also intrinsically have hydrophobicity as presently claimed.

11. Claims 1-7, 9, 10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumura et al. (U.S. 6,419,732) in view of EP 738771.

The rejection is adequately set forth in paragraph 13 of the office action mailed 6/29/05 and is incorporated here by reference.

Further, given that Matsumura et al. in combination with EP 738771 discloses water-soluble substance, i.e. hydrolyzable silane, identical to that presently claimed, it is clear that the water-soluble substance would intrinsically condensation polymerize in the absence of water and thereby intrinsically form a network so as to enclose the colorant as presently claimed. Additionally, given that the water-soluble substance of EP 738771 has hydrophobic group as presently claimed, it is clear that the network would also intrinsically have hydrophobicity as presently claimed.

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12. Claims 8, 11, and 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumura et al. in view of EP 738771 as applied to claims 1-7, 9, 10, and 12 above, and further in view of Blease et al. (U.S. 6,585,362).

The rejection is adequately set forth in paragraph 14 of the office action mailed 6/29/05 and is incorporated here by reference.

### **Response to Arguments**

13. Applicants' arguments filed 9/29/05 have been fully considered but they are not persuasive.

Specifically, applicants argue that claims 1, 10, and 12 have been amended to include hydrophobicity which is not taught by Matsumura et al., Blease et al., or EP 738771.

With respect to Blease et al., it is agreed that there is no disclosure of water-soluble substance having hydrophobic group wherein the water-soluble substance is condensation polymerized in the absence of water thereby forming a network so as to enclose colorant wherein the network has hydrophobicity. This is why Blease et al. is used in combination with EP 738771.

With respect to Matsumura et al., it is noted that Matsumura et al. disclose water-soluble substance, i.e. hydrolyzable silane, that includes halogenated alkyl group which is identical to hydrophobic group presently claimed. Thus, it is the examiner's position that Matsumura et al. do disclose water-soluble substance with hydrophobic group as presently claimed.

With respect to EP 738771, it is noted that EP 738771 discloses water-soluble substance that is reaction product of fluoroalkyl group-containing alkoxysilane comprising fluoroalkyl

group containing 1-20 carbon atoms, amino group containing alkoxy silane, and optionally alkyl group containing alkoxy silane. The water-soluble substance therefore contains both fluoroalkyl group and alkyl group which are identical to the hydrophobic groups presently claimed. Further, it is noted that the water-soluble substance of EP 738771 is identical to the water-soluble substance utilized in the present invention (see page 12, lines 14-21 of the present specification). Thus, it is the examiner's position that EP 738771 does disclose water-soluble substance with hydrophobic group as presently claimed.

While it is agreed that there is no disclosure in any of the cited prior art that the water-soluble substance is condensation polymerized in the absence of water thereby forming a network so as to enclose the colorant wherein the network has hydrophobicity because of the hydrophobic group as now required in all the present claims, given that Matsumura et al., Blease et al. in view of EP 738771, and Matsumura et al. in view of EP 738771 each disclose water-soluble substance, i.e. hydrolyzable silane, identical to that presently claimed including comprising hydrophobic group identical to that presently claimed, it is the examiner's position that the water-soluble substance would inherently or intrinsically condensation polymerize in the absence of water and thereby form a network so as to enclose the colorant as presently claimed wherein the network would have hydrophobicity because of the hydrophobic group as presently claimed.



**Conclusion**

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Callie E. Shosho  
Primary Examiner  
Art Unit 1714

CS  
12/2/05